

**DEPARTMENT OF THE ARMY**  
BUFFALO DISTRICT, CORPS OF ENGINEERS  
1776 NIAGARA STREET  
BUFFALO, NY 14207-3199

**AGREEMENT FOR TECHNICAL, PLANNING AND ENGINEERING  
ASSISTANCE**  
**Between**  
**U.S. ARMY CORPS OF ENGINEERS**  
**And**  
**THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK**

THIS AGREEMENT entered into by and between the United States Army Corps of Engineers (hereinafter referred to as the "Government" or "USACE"), represented by the Buffalo District Commander executing this Agreement, and The Research Foundation of State University of New York (hereinafter called the "Sponsor").

WITNESSETH, that:

WHEREAS, Section 401 of the Water Resources Development Act of 1990 (Public Law 101-640), as amended authorizes the Secretary of the Army to provide technical, planning and engineering assistance to States and local governments in the development and implementation of Remedial Action Plans (RAP) for Areas of Concern (AOC) in the Great Lakes identified under the Great Lakes Water Quality Agreement of 1978 and requires the non-Federal interests to contribute, in cash or by providing in-kind contributions or services, thirty-five (35) percent of the cost of such assistance.

WHEREAS, The Rochester Embayment has been identified as an Area of Concern under the Great Lakes Water Quality Agreement of 1978.

WHEREAS, the Sponsor has identified the need for technical, planning and engineering assistance as described in the Scope of Work (Exhibit A) attached to this Agreement. The services would assist in developing and/or implementing the Remedial Action Plan for the Rochester Embayment Area of Concern.

WHEREAS, the Sponsor has the authority and capability to furnish the cash contribution and/or in-kind contributions or services hereinafter set forth and is willing to participate in the cost sharing and financing of the services to be provided in accordance with the terms of this Agreement.

WHEREAS, the Sponsor desires to perform certain work, hereinafter known as "in-kind services," as defined in Article I, Paragraph 3 of this agreement and is willing to contribute in-kind services, as described in the Scope of Work (Exhibit A) at a cost of Twenty Two Thousand Six Hundred and Twenty Dollars (\$22,620.00), which is equal to thirty-five (35) percent of the preliminary cost estimate, as credit toward its share of the cost of the Government's technical, planning, and engineering assistance.

NOW THEREFORE, the parties agree as follow:

## **ARTICLE I - DEFINITIONS**

For the purpose of this Agreement:

1. The term “technical, planning, and engineering assistance costs” shall mean any and all disbursements by the Government pursuant to this Agreement, whether from Federal appropriations or from funds made available to the Government by the Sponsor. Such costs shall include, but not be limited to: labor charges; direct costs; overhead expenses; supervision and administration costs; contracts with third parties, including termination or suspension charges; any termination or suspension charges; and any termination or suspension costs (ordinarily defined as those costs necessary to terminate ongoing contracts or obligations and to properly safeguard the work already accomplished) associated with this Agreement.

2. The term “Scope of Work” or “SOW” shall refer to Exhibit A, which describes the activities associated with the technical, planning, and engineering assistance to be provided.

3. The term “In-Kind Service” shall mean a service, to be provided by the Sponsor, that is compatible, as determined by the Government, with the technical assistance being provided under this agreement. The in-kind services described in Exhibit A of this document are fixed fee items. The dollar value of the services, as shown in Attachment I to Exhibit A is based on the non-Federal Sponsor’s proposal that has been reviewed and approved by the Government.

4. The term “Preliminary Cost Estimate and Cost Apportionment” shall mean a preliminary estimate of costs and the estimated Federal and non-Federal share of costs and/or in-kind services for the technical, planning, and engineering assistance established by the Government for which cash payments are to be made to the Government, or in-kind services are to be provided. The preliminary cost estimate and cost apportionment may change subject to negotiations. All cash payments shall be made by cashier or certified check made payable to “FAO, USAED, Buffalo” prior to any work being performed under this agreement. The checks should be mailed to:

U.S. Army Corps of Engineers, Buffalo District  
ATTN: Philip E. Berkeley  
1776 Niagara Street  
Buffalo, NY 14207-3199

## ARTICLE II - OBLIGATIONS OF PARTIES

1. The Government, using Sponsor-contributed funds and/or in-kind services and Congressionally-appropriated funds, shall provide the required technical, planning, and engineering assistance, substantially in compliance with the SOW attached as Exhibit A and in conformity with applicable state and federal laws and regulations and mutually acceptable standard of engineering practice. The Sponsor, using non-Federal funds, shall provide in-kind services substantially in compliance with the SOW attached as Exhibit A and in conformity with applicable state and Federal laws and regulations and mutually acceptable standard of engineering practice.

2. The Government shall contribute sixty-five (65) percent of the total cost of providing the technical, planning, and engineering assistance as specified in Attachment I and set forth in Exhibit A. The Sponsor shall contribute thirty-five (35) percent of the total cost, in in-kind services as specified in Attachment I, of the technical, planning and engineering assistance set forth in Exhibit A. Total cost of the assistance is currently estimated at \$64,120.00 as specified in Attachment I to Exhibit A.

3. No Federal funds may be used to meet the local Sponsor's share of technical, planning and engineering assistance costs under this Agreement unless such Federal funds have been appropriated for such purpose and allocated for such technical, planning and engineering assistance.

4. The award and administration of any contract with a third party for services in furtherance of this Agreement, which obligates Federal appropriations, shall be exclusively within the control of the Government.

5. Before a party to this Agreement may bring suit in any court concerning any issues relating to this Agreement, such party must first seek in good faith to resolve the issue through negotiation or other form of nonbinding alternative dispute resolution mutually acceptable to the Parties. The respective parties will bear their own costs.

6. At any time, by mutual consent of the parties, this Agreement and/or SOW may be amended. Such amendment must be in writing with signatures by the appropriate authorities of the respective parties.

7. This Agreement shall terminate at the completion of those technical, planning, and engineering assistance activities identified in the SOW; or, this Agreement may be terminated before completion upon agreement of the respective parties.

8. If the parties agree to terminate before completion, the Government shall prepare a final accounting of the costs for technical, planning, and engineering assistance provided, which display: (1) costs incurred by the Federal Government; (2) cash contributions and/or in-kind contributions or services by the Sponsor; and (3) disbursement by the Government of all funds. Subject to the availability of funds, within thirty (30) days after the final accounting, the Government shall reimburse the Sponsor

for non-Federal cash contributions that exceed the Sponsor's' required share of the total costs. Within thirty (30) days after the final accounting, the Sponsor shall provide the Government any cash contributions required to meet the Sponsor's required share of the total costs of the technical, planning, and engineering assistance provided, as provided in Article II, paragraph 2.

9. In the event that any (one or more) of the provisions of this Agreement is found to be invalid, illegal, or unenforceable, by a court of competent jurisdiction, the validity of the remaining provisions shall not in any way be affected or impaired and shall continue in effect until the Agreement is completed.

10. This Agreement shall commence on the date the last signatory signs this Agreement (the "Commencement Date").

The parties having read and understood the foregoing terms of the Agreement, do by their respective signature dated below, hereby agree to the terms hereof.

**FOR THE U.S. ARMY CORPS OF ENGINEERS:**

/S/

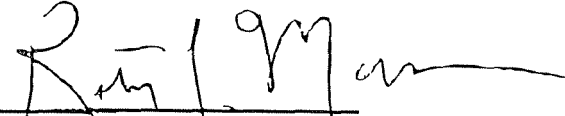


/Glen R. DeWillie  
Lieutenant Colonel, U.S. Army  
District Engineer

6/14/02  
Date

**FOR THE RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK:**

/S/



Robert S. Mason  
Contract and Grant Specialist  
The Research Foundation of State University of New York

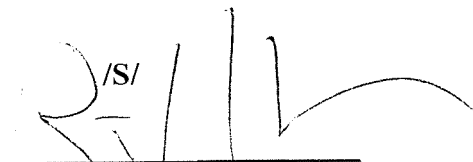
6/12/02  
Date

## CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000.00 and not more than \$100,000.00 for each such failure.

A handwritten signature in black ink, appearing to read "R. S. Mason", is written over a horizontal line.

Robert S. Mason  
Contract and Grant Specialist  
The Research Foundation of State University of New York

6/12/02  
Date

**EXHIBIT A**  
**SCOPE OF WORK**  
**TECHNICAL, PLANNING, AND ENGINEERING ASSISTANCE**

**1. Purpose:** This exhibit describes the scope of technical, planning, and engineering services to be performed under the authority of Section 401 of the Water Resources Development Act of 1990 (Public Law 101-640), as amended. These services would be performed for the purpose of assisting the Monroe County Department of Health, Bureau of Environmental Quality, in the implementation of a Remedial Action Plan (RAP) for the Rochester Embayment Area of Concern (AOC). This exhibit includes a description of the services to be provided by the Buffalo District, U.S. Army Corps of Engineers (USACE).

**2. Location:** The Rochester Embayment is an area of Lake Ontario formed by the indentation of the Monroe County shoreline, between Bogus Point in the town of Parma and Nine Mile Point in the town of Webster. Projecting a straight line between Bogus Point and Nine-Mile Point delineates the northern boundary of the AOC. The southern boundary includes approximately six miles of the Genesee River that is influenced by lake-levels, from the river's mouth to the Lower Falls. The drainage area of the embayment is more than 3,000 square miles. This area consists of the entire Genesee River Basin and parts of two other drainage basins including the easternmost area of the Lake Ontario West Basin and the westernmost area of the Lake Ontario Central Basin.

**3. Background:** In 1978, the Great Lakes Water Quality Agreement between the U.S. and Canada defined polluted AOCs in the Great Lakes. The Agreement also recommended the development of AOC-specific RAPs (comprehensive ecosystem approaches to restoring and protecting an AOC) to define corrective measures that would restore beneficial use to each AOC. Among the six AOCs in New York, the Rochester Embayment RAP is unique in that Monroe County developed it, under contract with the New York State Department of Environmental Conservation (NYSDEC). The Monroe County Department of Health led this effort by coordinating the RAP process and writing the RAP documents.

A RAP Technical Group was established in 1988 to oversee the writing of the Stage One RAP that was researched and written by a consultant team. In 1993, the RAP Technical Group was merged into the County Water Quality Coordinating Committee that took on the role of overseeing the writing of the Stage Two RAP. The final Stage Two RAP document was completed in 1997. The Stage Two Addendum was published in 1999. Sedimentation in the Genesee River basin is a primary subject of concern for the RAP. This concern stems from the impact of sedimentation on degradation of aesthetics; and the carrying of nutrients associated with eutrophication and algae blooms that contribute to beach closings.

The erosion and sedimentation history of the Genesee River, downstream from the Mount Morris Dam, has raised questions regarding non-point source pollution, rapid meander

migration through prime farmland, and dredging activities in the navigation channel. A preliminary study commissioned by the Monroe County Health Department provided some baseline data on the behavior and recent geologic history of the river, below the dam in the 14-mile reach between Mount Morris to Geneseo. The study documented that migrating river meanders have reworked the floodplain sediments from 1942 to 1995, over an area of 0.437 square miles. This figure represents 5.46% of the eight square mile total floodplain area. Active meander migration, up to 22 feet per year, is correlated to farm areas where natural vegetation has been removed from the channel banks. Based on the aerial photography of 1942, only 11 percent of the studied channel remained fixed.

The hydraulic adjustment of the river, both natural and/or accelerated by the construction of the dam, resulted in a lengthening of the channel by 1.26 miles (9.1%) from its 1942 length of 13.86 miles. This has added 2.52 miles of bank exposures to the existing channel that serves as a source of downstream sediment. The 1997 report, based on 16 reliable radiocarbon dates, concluded that the channel was relatively stable with regard to lateral meander migration in the prehistoric period. Additionally, the report concluded that the floodplain stored an average of 20,000 tons of sediment per square mile, per year, as a result of pre-dam over-bank flooding. This phenomenon, now essentially eliminated by controlled flood releases, is hypothesized to be contributing to the sediment loading of the channel between the dam and Lake Ontario. The erratic movement of sediment through the main channel was confirmed by USEPA/USGS sediment studies.

The Rochester Embayment RAP seeks to extend the long-term and recent sediment budget studies and establish current baseline conditions for the Genesee River from Mount Morris to Rochester. Several critical needs were documented by the 1997 study. These needs included:

- Existing limited data needs to be expanded and refined for the entire reach between the Mount Morris dam and Rochester. The 16 useable radiocarbon dates from the 1997 study only provided a limited record from which to infer the complex post-glacial geologic history of a limited portion of the channel and flood plain. More comprehensive data can provide a needed perspective for evaluating the impact of farming and dam construction on the natural, long-term behavior of the river.
- Aerial photographic comparative studies for the remaining reach of channel between Geneseo and Mount Morris need to be completed. In addition the US Department of Agriculture files color slide photography on an annual basis for agricultural inventories. This database can be inventoried to bring the 1995 mapping results up to date. This may establish accelerated impacts introduced by the subsidence of the river floodplain from the Akzo salt mine collapse, which occurred in 1994, beneath a large portion of the floodplain.
- Additional radiocarbon samples need to be acquired and analyzed for the entire section of the river between the Mount Morris Dam and the NY State Barge Canal at Rochester.

- If the impacts of future erosion and sedimentation over the long-term are to be documented accurately, a more accurate photographic and channel baseline survey, and a record of current conditions needs to be compiled.
- Channel width measurements and basic geometry measurements need to be collected to link the ground-based photographic and sample databases.

**4. Support Activities and Performance:** The USACE technical support identified below in this Exhibit will assist the Sponsor in the extension of sedimentation budget studies that directly effect the Rochester Embayment AOC. The Buffalo District Corps of Engineers, and US ACE-affiliated research facilities will perform the USACE support described by specific sub-components of Item 001 described below. The Sponsor will provide in-kind services associated with this Scope of Work and described by specific sub-components of Item 001 described below.

**Item 001: Extension of Sedimentation Budget Studies.** The extension of the sedimentation budget studies will be conducted to address the critical needs that were documented by the 1997 study. A more specific description of the assistance to be performed by the USACE and the work to performed by the Sponsor follows:

- 1) Aerial Photographic Map Record: The Sponsor will complete an aerial photographic map record (1942 to 1995) for the remaining 41 miles of historic channel changes from Geneseo, north to the Barge Canal.
- 2) Analysis of Aerial Color Slides: The Sponsor will analyze aerial color slides for additional channel changes from 1995 to the present for the original study, and as much of Livingston and Monroe Counties annual aerial inventories as is available from local USDA Soil Conservation Service offices. Emphasis will be placed on the following areas:
  - The areas immediately downstream from Mount Morris dam.
  - The vicinity of the Akzo salt mine collapse.
  - Areas with clear histories of rapid or significant changes.
  - Areas previously identified as problem areas.
- 3) Digital Photographic Survey: The Sponsor will develop a digital photographic survey of the channel every 100 to 200 feet with imbedded scales. The photography will include overlapping stereographic images of key sections where ongoing or potential changes are apparent. The photographs will be numbered, stored as tiff or jpg images on CDs, and linked to map and GPS locations with appropriate date and azimuth information.
- 4) Channel Measurements: The Sponsor will take laser measurements of channel width and depth at selected intervals and key cross-sections, linked to digital imagery.
- 5) Sample Collection: The Sponsor will collect 50 small radiocarbon samples for



analysis and calculation of channel erosion and floodplain sedimentation, for the prehistoric period. The sampling sites will be documented using GPS and digital photographs. A few samples at previously studied Genesee Valley sites will be included for quality control.

- 6) Radiocarbon Analysis: The USACE will be responsible for the 50 radiocarbon age determinations that will be used to calculate channel erosion rates and floodplain sedimentation for the prehistoric period.
- 7) Quality Assurance Project Plan (QAPP): The USACE will coordinate and collect all information necessary for the QAPP.
- 8) Equipment Procurement: The USACE will provide additional equipment required to accomplish this project. The items to be provided are: an Olympus 4.0 Megapixel C-4040 Zoom digital camera with Smartcard storage; an Impulse Laser Rangefinder/Hypsometer, a portable, handheld distance and height measurement instrument that runs on 2-AA batteries and has at least a +/-0.1 foot accuracy at 164 feet; and a Garmin e-Trex Vista model hand held GPS instrument. These items will be protected and regulated under Federal Acquisition Regulation 52.245-4 Government-Furnished Property (Short Form).
- 9) Reporting: The Sponsor will be responsible for the following reports which will be available in Word format for text, Excel format for tables, and appropriate electronic format for maps. Also, the entire document (including text, tables, maps, and photographs) will also be available in a pdf. format. The following reports will be distributed as shown below, per the schedule shown in Table A-1.
  - a. Distribution of Draft Progress Description on the Sedimentation Budget Studies in the Genesee River Basin Report. A Draft Progress Report will be provided electronically with hard copy maps (if necessary). If only hard copy is available, the distribution is as follows: two copies to USACE Buffalo and one copy to the Coordinator of the Rochester Embayment RAP.
  - b. Distribution of Final Sedimentation Budget Studies in the Genesee River Basin Report (hard copy): ten copies to USACE Buffalo and ten copies to the Coordinator of the Rochester Embayment RAP
- 10) Student Assistant Support: The USACE will provide support for the payment and fringe benefits of the two student assistants necessary for the Sponsors completion of Items (001,1) through (001,5) and Item (001,9). The full payment is an \$8,000.00 fixed price, not for fee, compensation agreement. The full payment of \$8,000.00 will be remitted no later than 30 days after the full execution of this agreement.

**5. Schedule of Activities:** The following activity schedule is tentative. The USACE will initiate work relative to Item 001 on USACE signature of the Letter of Agreement. At

that time, the schedule of activities will be revised, as necessary, in coordination with the local Sponsor.

### **Tentative Schedule**

<b>Activity/Deliverable</b>	<b>Tentative Completion Dates 2002-2003</b>
1. QAPP (Item 001,7)	
• Draft	6/20/02
• Final	6/28/02
2. Digital Photographic Survey (Item 001,3)	8/24/02
3. Channel Measurements (Item 001,4)	8/24/02
4. Sample Collection (Item 001,5)	8/24/02
5. Aerial Photographic Map Record (Item 001,6)	12/20/02
6. Analysis of Aerial Color Slides (Item 001,2)	12/20/02
7. Analysis of Radiocarbon Samples (Item 001,6)	1/15/03
8. Draft Progress Description on Report (Item 001, 9a.)	9/10/02
9. Final Report on the Sedimentation Studies in the Genesee River Basin (Item 001,9b.)	4/20/03

**6. Preliminary Cost Estimate and Cost Share Apportionment:** The preliminary cost estimate and Federal (USACE) and non-Federal cost-share apportionment is provided in Table I-1 in Attachment I to Exhibit A. This Agreement is non-binding until the U.S. Army Corps of Engineers receives the non-Federal cash share of the funds, if required.

**7. Corps of Engineers Points of Contact:** Mr. Philip E. Berkeley LRB, U.S. Army Engineer District, Buffalo, 1776 Niagara Street, Buffalo NY 14207-3199; Telephone: 716-879-4215; E-mail: [philip.e.berkeley@usace.army.mil](mailto:philip.e.berkeley@usace.army.mil)

**ATTACHMENT I**  
**PRELIMINARY COST ESTIMATE AND COST APPORTIONMENT**

1. **Cost Estimate:** The cost estimate, established by the Government and provided in Table I-1, is for the Corps of Engineers' assistance under the Great Lakes RAP Program and The Research Foundation of State University of New York, Geneseo, New York, the non-Federal Sponsor, in calendar year 2002, per Exhibit A.

<p style="text-align: center;"><b>Table I-1</b> <b>PRELIMINARY COST ESTIMATE</b></p>				
<b>Item No.</b>	<b>Work Activity</b>	<b>Federal Share (\$)</b>	<b>Non-Federal Share (\$)</b>	<b>Total Cost (\$)</b>
001	Extension of Sedimentation Budget Studies Planning	6,900		6,900
001,1	Aerial Photographic Map Record		1,300	1,300
001,2	Analysis of Aerial Color Slides		1,420	1,420
001,3	Digital Photographic Survey		5,700	5,700
001,4	Channel Measurements		5,700	5,700
001,5	Sample Collection		8,500	8,500
001,6	Radiocarbon Analysis	22,000		22,000
001,7	QAPP	2,200		2,200
001,8	Equipment Procurement	4,400		4,400
001,9	Reporting	1,000		1,000
001,10	Student Assistant Support	8,000		8,000
<b>TOTALS</b>		<b>41,500</b>	<b>22,620</b>	<b>64,120</b>

2. **In-Kind Services:** The total value of the Sponsor's proposed in-kind services in conjunction with this assistance are described in Item 001, Exhibit A. These services exceed the Sponsor-required Non-Federal cost-share of \$22,620. The Sponsor will contribute the services described in Item 001 as part of the extension of long-term and recent sedimentation budget studies. However, only \$22,620 (35% of the total cost) in services will be accepted by the Government as credit toward the required Non-Federal cost-share.

**3. Cost Apportionment:** The Federal cost responsibility and non-Federal responsibility, as described in Exhibit A, are summarized below:

The Research Foundation of SUNY (Non-Federal share: contributed funds). . . . .	\$ 0
The Research Foundation of SUNY (Non-Federal share: in-kind services).....	\$ 22,620
U.S. Army Corps of Engineers (Federal share).....	<u>\$ 41,500</u>
<b>Total Federal Share + Non-Federal Share = \$64,120</b>	